

DUTCH ELM DISEASE
DETECTION IN EIGHTEEN
LOUISIANA PARISHES

by

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Abstract

Dutch elm disease (DED) was detected in one parish during a roadside survey of 18 Louisiana parishes. Fourteen of the parishes were south of Interstate 20 and four north of it. Parishes surveyed were DeSoto, Red River, Bienville, Jackson, Natchitoches, Caldwell, Franklin, Catahoula, Concordia, Tensas, LaSalle, Winn, Grant, Rapides, Union, Morehouse, Lincoln and Ouachita. One of the two samples taken proved positive for DED despite the symptoms appearing to be herbicide damage.

INTRODUCTION

A survey of parishes north of Interstate 20 (I-20) in 1983 showed Dutch elm disease (DED) present in seven parishes (Affeltranger et al., 1983). This survey was intended to supplement the previous survey.

MATERIALS AND METHODS

With the help of area and county foresters of the Louisiana Forestry Commission, a roadside survey was conducted in early June 1984. Areas of high elm concentration in eighteen Louisiana parishes, fourteen south of and four north of I-20, were surveyed.

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Branch samples were taken from suspect trees. Incubated on malt agar and in moist chambers in the laboratory, the samples were examined for the imperfect stage of the DED fungus..

RESULTS

Two symptomatic trees - one in Natchitoches and one in Concordia Parish - were sampled. No pathogenic fungi were isolated from the Natchitoches samples. The symptoms, chlorotic mottle on one tree, and discolored (but not streaked) sapwood on the other tree, appeared to be the result of herbicide injury. The tree sampled in Concordia Parish yielded the causal fungus of DED despite the atypical symptom pattern.

DISCUSSION

It seems reasonable to believe that DED presence south of the interstate is limited since the elm population is scattered. The results of this survey support this conclusion. Next year a survey should be conducted to complete this DED survey in the remaining unsurveyed range of elm in the state.

REFERENCES CITED

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